

## Weather Notes

DUST WHIRL ON A QUIET DAY, SYRACUSE, N. Y., MARCH 28, 1957

The following is a description of a well-developed dust whirl that was unusual because it occurred under rather calm conditions in cool air before the time of normal diurnal heating. Probably it illustrates the prevailing convective nature of the atmosphere in the areas near the eastern end of Lake Ontario, a natural "cloud and precipitation laboratory." The whirl occurred on an otherwise gustless and almost breezeless day (generally not much over about 10 m. p. h.) at a highway intersection about three miles west of the downtown business center of Syracuse, N. Y., in a large suburban-type residential area that occupies the narrow valleys.

On March 28, 1957, at 11:00 a. m., EST, at the corner of West Genesee St. and Charles Ave., in the southeastern corner of the parking lot of the very expansive Westvale Shopping Center immediately northwest of the intersection, a well-developed dust whirl was observed, about 25 feet in diameter and 35 feet high. The counterclockwise spin had a rotational speed that was estimated to be about 50 m. p. h. or higher, and the whirl moved forward at about 8 m. p. h. from west-northwest to east-southeast. It was already fully developed when it was first observed well within the parking lot, and it remained approximately constant in strength as it continued to move; its height and intensity increased slightly after moving over the highway. It crossed West Genesee St. exactly at the intersection, and it was still very active over the gasoline service station southeast of the intersection, when the observer was too distant to continue the observation. The observer was in a position to watch it for about one minute, but he was operating an automobile in heavy traffic and was unable to remain there; he had a good vantage point while waiting at a traffic light at the intersection. The whirl contained dust and sand (the remains of a winter accumulation after the snow melted), papers, and perhaps a few old leaves. A man caught in the whirl covered his face and head with his arms.

The appearance of such a whirl at that time seemed strange because the observer noticed no other gusts that morning or afternoon anywhere in the Syracuse area, sufficient to raise dust or move papers; the twigs at the tops of the trees were almost motionless that noon, and no more than slight motion of the twigs on the trees was observed at any time that day. At the time of the whirl, the sky was blue with a few small cumulus clouds; later there were large cumulus and stratocumulus.

West Genesee St. runs west-east through a narrow shallow steep-sided valley, and Charles Ave. runs north-south through a narrow but less shallow and steeper-sided valley. The Shopping Center occupies a large deep excavation into the hill behind it, and its large parking lot has a black-top pavement. While the narrow valleys have many houses and a few trees, the surrounding very small but steep hills are mostly grassy with very few trees or houses. There was no snow cover.

The temperature at that time was 51° F., according to the observer's instruments on the hillside 0.2 mile south, and the dew point 37° F. The maximum temperature registered there was 53° F. about three hours later, at which time the dew point was 27° F. The weather maps for that time appear to show appreciable convergence over central New York State.—*C. R. Embree, 214 Draper Ave., Syracuse, N. Y.*

*Editorial Note:* For comparison the 11:30 EST weather observation at Syracuse WBAS (Hancock Field) is given below. The airport is about 5 miles northeast of the Syracuse business section. "Scattered clouds at 5000 ft.; visibility, 11 miles; pressure, 1022.1 mb.; temperature, 47° F.; dew point, 24° F.; wind from the northwest at 2 knots." The maximum temperature at the airport that day was 50° F., the minimum that morning, 30° F.